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(71) Applicant (for all designated States except US): DOMPE' S.P.A. [IT/IT]; Via Campo di Pile, I-67100 L'Aquila (IT).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): MORICONI, Alessio [IT/IT]; Via Campo di Pile, I-67100 L'Aquila (IT). ALLEGRETTI, Marcello [IT/IT]; Via Campo di Pile, I-67100 L'Aquila (IT). BERTINI, Riccardo [IT/IT]; Via Campo di Pile, I-67100 L'Aquila (IT). CESTA, Maria, Candida [IT/IT]; Via Campo di Pile, I-67100 L'Aquila (IT). BIZZARRI, Cinzia [IT/IT]; Via Campo di Pile, I-67100 L'Aquila (IT). COLOTTA, Francesco [IT/IT]; Via Campo di Pile, I-67100 L'Aquila (IT).
- (74) Agent: PIERACCIOLI, Daniele; Dompe'S.p.A., Via San Martino, 12, I-20122 Milano (IT).
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(57) Abstract: Selected 2-arylacetic acids, their derivatives and pharmaceutical compositions that contain these compounds are useful in inhibiting chemotactic activation of neutrophils (PMN leukocytes) induced by the interaction of Interleukin-8 (IL-8) with CXCR1 and CXCR2 membrane receptors. The compounds are used for the prevention and treatment of pathologies deriving from said activation. In particular, 2(ortho)-substituted arylacetic acids or their derivatives, such as amides and sulfonamides, lack cyclo-oxygenase inhibition activity and are particularly useful in the treatment of neutrophil-dependent pathologies such as psoriasis, ulcerative colitis, melanoma, chronic obstructive pulmonary disease (COPD), bullous pemphigoid, rheumatoid arthritis, idiopathic fibrosis, glomerulonephritis and in the prevention and treatment of damages caused by ischemia and reperfusion.